DOCUMENT RESUME

ED 158 196 CG 012 780

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TITLE Adolescent Development and Teenage Fertility.
PUB DATE 16 Jun 77
NOTE 22p.; Paper presented at the Planned Parenthood Regional Conference on Adolescence (Boise, Idaho, June 16, 1977)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Adolescence; *Birth Rate; Contraception; *Individual Development; Personal Growth; *Pregnancy; Research Projects; Sexuality; Social Maturity; *Teenagers

ABSTRACT

This study considers how adolescent development is related to teenage fertility. Findings from two studies indicate that in some ways teenagers as a group differ from older individuals. The paper details some of the ways in which sexual experiences are influenced by social and emotional maturity and outlines some of the problems which result from the need to coordinate development on the levels of biology, individual differences, and social interactions. Many of these problems are more pressing during adolescence than they ever appear in later life. The author points out that human fertility decisions always demand a blend of emotion and logic. The ability to make life decisions which combine both feelings and facts develops during the adolescent years, and this characteristic must be central to all thinking about psychosocial development. (Author)

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Adolescent Development and Teenage Fertility

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In one sense, it is paradoxical that there should be a heightened interest in and concern about teenage fertility at this particular time. As Wendy Baldwin (1976) of the Center of Population Research has shown in her recent analysis of birth statistics, there has actually been a drop in the rate of teenage fertility*. A high point in teenage fertility was reached in 1957, when the rate was 97.3 births for every 1000 women between the ages of 15 to 19 years. In 1974 the rate was 58.7 per 1000, a little more than half. It could also be noted that historically the average age at birth of first child has often been lower for American women than it is now.

However, there is still reason to be concerned about current trends in teenage fertility. Regardless of historical facts about age at first birth, there is growing evidence that teen motherhood has costs to the woman, her child, her family, and society which are avoided by older women. The recently published work of Furstenberg (1976) indicates that if a teen mother and her child escape from the hazards of their situation it is only through strong effort and motivation on the part of the woman and her family.

Furthermore, while rates of teenage fertility have decreased, the number of teen mothers has not, simply because there are more teenagers. Specifically, the number of females between the ages of 15 and 19 years increased from 15 million in 1960 to 20 million in 1974. As a result

*I am using the term "fertility" here, to mean actual birth rate, not biological capability of conceiving.

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the annual number of births to teens during these two years is about the same: 609,000 in 1960 versus 608,000 in 1974. The research which I will talk about today takes its beginning from these statistics. It is clear that a large number of women have motherhood as part of their adolescent experience -- perhaps more so than at any time in U.S. history. Additionally, though obviously not unrelated, an even greater number of women have premarital intercourse as part of their adolescent development. These experiences must have some influence on psychosocial development and must in turn be affected by it. Surprisingly, when one examines the professional literature on adolescent sexuality and fertility, there is little discussion of developmental issues.

The major body of studies directly applicable to the understanding of psychosocial development and teenage fertility are national and smaller-sample studies investigating attitudes and self-reported sexual and contraceptive behavior. The recent work of Kantner and Zelnick (1977, 1973) and Sorensen (1973) and the earlier work of Reiss (1961) Kirkendall (1961) and others are examples of this. Cathrine Chilman, (1977) of the University of Wisconsin at Milwaukee has recently completed a comprehensive review of this research which makes clear why it is not suitable for understanding the relationship between development and fertility. Most of the studies interview participants at only one point in time. Thus it is not possible to trace developmental trends. There are very few studies which have more than one interview on a single individual. Among these are Furstenberg's study, (1976), in Philadelphia, Harriet Presser's study, (1977), in New York City and the Jessors' study, (1975) in Boulder, Colorado.

Even these longitudinal studies do not ask the questions specifically focused on development.

A similar gap is found when one turns to the more traditional developmental literature and theory. In many cases theorists simply do not address themselves to questions of emotion or sex (eg, Piaget). More often discussions of these topics are limited to issues of physical development, gender identity, and sex role learning. Little mention is made of how actual sexual experiences interrelate to these developments. Erikson (1968) has presented one of the most complete schemes of adolescent development. It has come to be widely accepted as a reasonable approximation of the crisis an individual faces at different points in his or her life. But even this scheme does not adequately handle the relationship between development and sexual experience.

Erikson suggests that a crisis of intimacy occurs sometime between the late teens and late twenties. This crisis follows establishment of an occupational and idealogical identity. Indeed, Erikson supposes that it can not occur until the individual has reached some sort of stable occupational identity. What are the consequences for the individual when he or she experiences sexual intimacy in the full physical sense some years before even seriously considering how he or she might enter the adult world of work? We do not have a good set of guesses, even though this experience is becoming more typical for U.S. teenagers.

ADOLESCENT DEVELOPMENT AND FERTILITY STUDY

This then is the background and rationale for the research on adolescence and fertility which I have been involved in. Thus far,

our study group at Western Washington University has been involved with two separate but related investigations. Taken together they provide information about the same individual over a two-year period of development, as well as information about general changes among teenagers over a four-year period. The first study was begun in 1975. In that year males and females, mostly 11th graders, were interviewed and completed questionnaires relating to activities and attitudes on sex, family, education, personality, and a variety of other topics. Each interview took 1½ to 2 hours. Approximately one fourth of these same individuals were interviewed again 12 to 18 months later. This study was coordinated by the American Public Health Association and was conducted in two large metropolitan areas; Washington, DC, and Atlanta, GA; and one smaller urban area; Bellingham, Wa.* The samples obtained seemed to be representative of their areas. It should be mentioned that the Washington, DC, sample was taken from generally suburban areas, not the inner city area.

The second study, which covered some of the same material as the first, is being conducted only in Bellingham, Washington, and the surrounding area. Nineteen seventy-seven was the first year of this study and participants will again be interviewed in 1978. During the first year of this study 10th and 11th graders were interviewed.

The first study was designed to develop personality and other individual predictors of teenagers who are at high risk of becoming pregnant. The second study was designed to investigate the relationship between social, emotional and intellectual development and fertility-related behavior. Despite these differences, the studies have a number of points in common.

*Other investigators in the study were: E.James Lieberman and Sarah Brown (American Public Health Association), Warren Miller (American Institutes of Research), Paul Poppen (George Washington University), and Fred Crawford (Emory University).

Nearly 1400 individuals have taken part in the two studies. I am only going to talk about the Washington State data, and primarily about the approximately 120 women in the first study. They should be of most interest to this group since they reside in the Pacific Northwest. More importantly, we do not have most other analyses completed. I might note in passing, however, that the comparisons we have between sites indicate very few important differences. A slight average difference is found in sexual attitudes. Washington, DC, is the most liberal and the Washington State group the least with Atlanta, GA, in between. But there are no large site differences for sexual or contraceptive behavior. Nor do we find large differences related to race, socioeconomic class or other demographic characteristics. At any rate, the women I am going to talk about are all white, mostly middle class and between the ages of 15 and 19 years. When they were first interviewed most were either 16 or 17. At the time of the second interview most were 17 or 18 years old.

SEXUAL ACTIVITY

To begin with, the information we have on sexual activity and birth control use is in line with what we would expect on the basis of national statistics such as those reported by Kantner and Zelnick. In 1976, 57% of the women in our study reported that they were sexually experienced having their first sexual intercourse, on the average, at about 16 years of age. This degree of experience is slightly higher than the national statistics for 18 and 19 year olds. Kantner and Zelnick report 45% and 55% for these ages respectively. This difference may be the result of our selection technique which gave participants more time to consider

whether they wished to be in our study than did that of Kantner and Zelnick. Thus we may have been slightly more likely to exclude virgins and to include sexually active persons. Incidentally, I should add here that I am using the terms "sexually active" and "sexually experienced" to mean those individuals who have had full sexual intercourse at least once. "Active" as I will use it does not refer either to frequency or to recency of intercourse. Indeed, our statistics, as do those from other studies, indicate that sexual experience for teenagers, relative to that of older individuals, is infrequent. In the three months prior to the interview only 23% of the women classified as sexually active had intercourse more than once a week, 59% had sex fewer times, and 17% did not have intercourse at all during this period. Regretably, in spite of relatively low frequency of activity, the number of births for our study group is equivalent to national averages. Nearly one quarter of the sexually active women have been pregnant at least once. Over twenty percent of those ever-pregnant women have been pregnant more than once.

SEXUAL REVOLUTION AND ATTITUDES

One of the most frequent explanations for teen fertility is the idea that the U.S. has gone through a sexual revolution. It is certainly true that there have been some major shifts in sexual attitudes and behavior, but the sexual revolution as a singular explanation of adolescent sexuality misses some important specific points. We do find that attitudes on pre-marital sex are more highly related to sexual activity than any other measured attitude (r=.61). Sexually liberal persons are more likely to be sexually active than are conservatives. Attitudes are

measured by asking questions concerning the acceptability of premarital sex: Is it O.K. for men?, O.K. for women?, O.K. with love?, O.K. with affection?, and the desirability of marrying a virgin. The relationship between attitude and activity is less than it might be because of a number of women who hold liberal attitudes but who themselves are not sexually active, and a proportionately smaller number of individuals who are sexually active but who hold conservative attitudes.

One good way of accounting for these apparent discrepancies is by recognizing that the sexual revolution is a much different phenomenon for younger people, such as those in out study, than it is for older individuals. To be specific our interviews indicate that part of the reason some virgins report liberal attitudes is because for them permissiveness is an abstraction. Their general ideological evaluation is to accept any kind of behavior if it fits the standards of the person performing it. They are not as liberal when it comes to assessing individual cases, particularly their own or that of their friends.

A second important reason for the less-than-perfect congruence between permissive attitudes and sexual activity results from the individual's assessment of her own emotional and social development. An important reason given by many of the women for not becoming sexually active is that they do not believe that they are yet able to handle the emotions and responsibilities which they reasonably connect with sexual activity. This reason is equally or more important than family background or religion.

Males also reported that they had not had sexual intercourse because they were not ready for it. Rather than emphasizing responsibility and emotional readiness, the males were more likely to indicate that they

lacked the needed interpersonal skills to persuade a potential partner.

It might be added that a fairly large number of women who were virgins in 1975 indicated that they expected to have premarital intercourse. About 40% said that they thought they "definitely would" or at least "might" lose their virginity before marriage. Thirty-one percent of the virgins in 1975 had become active by 1976. Of these, all but four had anticipated having premarital intercourse.

There are relatively few women who hold conservative attitudes about premarital sex, but who themselves are sexually experienced. Their number is much smaller than that of the liberal virgins. This pattern seems to be very recent. In a 1962 study comparing American and Danish young people, Christiansen found more conservative actives than liberal virgins in the U.S.. He attributed this to the general restricted moral atmosphere surrounding sex at the time. A person might have engaged in premarital sex, but still not condone this activity as a general practice. To do so would mark oneself as immoral. The recent pattern of activity found in our study is similar to that found by Christiansen for Denmark in 1962.

While relativly few in number, the material we have collected on conservative actives is instructive. The most striking aspect of their attitudes seems to be denial of their sexual activity. Such denial is often manifested in the circumstances of their sexual encounters. The encounters are often marked by individuals placing themselves in situations in which they will lose control and critical judgement and thus also lose personal responsibility for their sexual conduct. Becoming drunk is one example. However, such "controlled" loss of control is not restricted

only to those with inconsistencies between their attitudes and behavior. It seems to be generally related to early sexual experience and is probably a defense which provides a period of time for the individual to negotiate a new self-concept which incorporates the facts of sexual activity.

CONTRACEPTIVE USE AND MATURITY

Our findings on contraceptive use are, as with much of our basic information, similar to national averages. Thirty-three percent of the women in our study have been protected less than 50% of the time or never during their sexual experience. Eighty percent have been unprotected at least once. Conversely, this means that 20% have always been protected. Contraceptive protection is defined as the use of any of the effective methods such as pill, IUD, Diaphram, or condom. Additionally correct and consistent use of rhythm or withdrawal was considered in these statistics to be contraception since we are interested in assessing intention and behavior, not biological risk of pregnancy. It might be added however, that the more consistent the contraceptive use, the more likely it is that the individual is not relying solely on rhythm or withdrawal.

There was a strong relationship between age at first intercourse and birth control use at first intercourse (see Table 1). The longer a woman postponed first intercourse, the more likely she was to be protected.

N	Age at First Sex	% Protected at First Sex
24	13-15	17%
22	16	45%
22	17-18	55%

Table 1

Table 1. Age and contraceptive protection at first sexual intercourse.

While we believe this result is due to a relationship between birth control use and maturity, there is a relevant historical effect operating as well. Since all participants were approximately the same age, those who were older at first intercourse experienced first intercourse historically more recently. For instance, those who were 17 or 18 at first intercourse experienced first intercourse sometime in 1976 or late 1975. On the other hand, the first intercourse for those who were 13 or 14 at the time occurred in the early 1970s. Thus the observed relationship between age and protection at first intercourse may reflect the compound effect of maturity, and an historical improvement in attitude toward birth control and availability of contraceptive services.

In the spring of 1975, when the average age of participants was 16½ years, age at first intercourse was one of the stronger predictors of current birth control use, defined as degree of protection during the 3 months prior to interview. Two personality and relationship variables were also moderately strong predictors of birth control use at this age. Better contraceptors disagreed with several social risk-taking items, such as "I am willing to try almost anything once" and "How I behave depends completely on the people I am with and the situation I am in." Also the more protected women tended to be involved with male partners who showed a greater emotional committment to the relationship. Interviews indicated that the male partner was very influential in determining the contraceptive practices of the couple by either taking the responsibility to use condoms or by suggesting that the woman obtain other methods.

The second interviews were conducted in the summer and fall of 1976, after the participants had graduated from high school. By this time,

overall degree of contraceptive use had improved. In the 1975 sample approximately 25% of the sexually active women had consistently used a birth control method during the 3 months prior to interview. In 1976 the comparable proportion was 76%. Additionally, in 1976, different variables were associated with birth control use than in 1975. Strong associations were found between good birth control use and the perception of birth control as effective, safe, and available. Higher frequency of intercourse also predicted better birth control use. Interviews indicated that these older women relied less on the male partner to provide the initiative for birth control use. In sum, these data indicate that in 1975, poor contraception was influenced by factors which are not readily susceptable to intervention: the most important of these were personality traits, age at first intercourse, and emotional committment of the male partner and his attitude toward contraception. The picture 15 to 18 months later is somewhat more encouraging. There is a higher level of protection which includes both a shift to more effective methods and more women using a method 100% of the time. Also the variables influencing birth control use are more similar to those we see among adult women. The older women are less likely to abdicate responsibility for contraception to their male partners. What is important now are responsible contraceptive attitudes and knowledge of services, and a relationship within which sexual intercourse is predictable and relatively frequent. Finally at the second interview age at first intercourse no longer predicts current birth control use: the very early active women have reached the higher level of protection of the women who were more mature at first intercourse.

SOCIAL RELATIONSHIPS AND MATURITY

Our study does indicates some of the characteristics of experiences which promote the development of social and emotional maturity. I would like to spend some time elaborating on these. in particular the social relationships with parents and partners.

PARENTS: Much of course, has been said about parent-child relationships during the adolescent years. Most notably about the presumed rebellion of children during this period. Many writers caution that terms such as "rebellion" are overgeneralizations, since most people seemingly pass very uneventful and relatively peaceful adolescent years. More recently there have been several attempts to relate sexual behavior to various forms of delinquent behavior. Studies by Jessor and Jessor, (1975), in Colorado and Miller and Simon, (1974), in Illinois, for instance have found a correlation between sexual activity and what the investigators have called delinquent acts: eg, shop lifting, car joy riding, beer drinking, marijuana smoking.

However, these studies are suggestive at best, since they do not provide much evidence from the teenager's point of view about the motivations for the behavior. Sexual activity may be a form of rebellion, but it is also a way of seeking intimacy and an expression of individuality. Questions about rebellion would seem to be settled by examining whether the behavior is autonomous of the parents or not. That is, did the individual have sex as a way of "acting against" the parent. There are at least 3 pieces of information in our study which allow us to examine this possibility: parents attitudes on premarital sex; parents'

disciplinary practices; and the quality of communication between parent and child. All of this information is based on teenagers' reports.

If teens are having sexual intercourse as a way of acting against their parents, one should find strong opposition to premarital activity among parents of the sexually active. One can hardly rebel using behavior parents condone. By this logic, rebellion was not found in our study. In fact, if anything, the reverse was true. Parents of sexually active teenagers were more likely to hold liberal attitudes on premarital sex than were the parents of virgins.

Furthermore, no differences were found between the actives and the virgins in the perceptions they have of their parents or in the interactions they have with them. Both groups of women feel "mostly good" about their parents. They report that their parents are moderately lax in their rules and somewhat inconsistent in their enforcement. Moderately open communication with mothers was reported by both groups of women, both for general topics and for marriage and sex. Slightly less communication was reported with fathers, but again virgins and actives did not differ on the average. Only one difference in parental behavior was found to be related to birth control use. Good birth control users reported that their parents were less strict in the enforcement of rules than did women with less effective birth control histories.

This indicates that early sexual experience is, for a majority of Americans not primarily a form of rebellion against parents. Rather, it is an expression of personal individuality. Sexuality is one of the few areas of life in which the teenager can express such individuality and take the responsibility for his or her actions and their consequences.

I do not wish to imply that rebellion is not a motivation in some individual cases. It is; but these are the minority and mostly seem restricted to cases of very early sexual experience. These cases are very often associated wi promiscuity and very poor contraceptive use. Some of these women report that they wanted to get pregnant so that they would have a baby to love, or so that they would be "grown up" and could leave home. Interestingly, such young women often report having had very open communication with their mothers. The content of this open communication consists in good part of the daughter reporting every aspect of all misbehavior in almost pathological detail. At the same time that the daughter is trying to demonstrate her independance from the mother her behavior seems motivated by the mother's reactions. Such relationships are not typical of good parent-child interactions, where some degree of privacy and mutual respect of attitudes is necessary.

Taken together, the information on parents has implications for sex education. It has become standard in many commuinties that sex education programs are opposed by individuals who hold that sexual topics should be taught in the home. The evidence we have speaks both to the possibilities and the limits of home education. Parental attitudes and values are important to teenagers. However, in many cases parents cannot think of their children as sexually capable people, and this perception limits the discussion and possible contribution of parents to sexual education. Sometimes, interactions with non-family members offer a much less threatening atmosphere for the discussion and exploration of sexual attitudes. We have found that many teenagers seek out such contacts and have as their confidantes, not only counselors and sex education

instructors, but also other teachers who have befriended them, older neighbors, relatives, and even persons for whom they baby-sit.

PARTNERS: I will discuss only a small part of what we have learned about interactions with male partners. As mentioned one half of the participants in our studies were males. This is a departure from most studies. The one thing I want to talk about is the motivations reported for first sexual intercourse. The reasons for first sexual intercourse rated most important by females were"partner's desire" and "love for partner." Males also rated "their desire" as the most important reason for first sexual intercourse, but for males "love for partner" was one of the least important motivations. The only less important influence for males was "availability of birth control." Incidentally, the influence of "availability of birth control" was rated least important by both males and females, lending some support to the claim that provision of contraceptive services does not influence the decision to begin having sexual intercourse.

The reasons for first sexual intercourse reported by women support those researchers who have concluded that, to quote Gagnon (1973) "falling in love serves as a novel mechanism through which constraints on sexual experimentation may be overcome." The research literature often suggests that teenage love is the culmination of a relatively long-term social relationship. While most women say that they "loved" their partner, they have not necessarily known him for a long length of time. There were many cases reported in our study of first partner being known for less than a month, week or even a day. This indicates that teenage women define love in a manner quite different than do

older women. While this findng is hardly startling, these age differences in the definitions of love lead to interesting conclusions. Parents often encourage sexual responsibility by stressing the importance of love. By doing so they may actually be increasing the chance that their daughter will have premarital coitus because love is the key justification for accepting premarital sex (Reiss, 1961).

KNOWLEDGE AND EDUCATION

It is a frequent conclusion that the problems of premarital conception can be solved by increasing sexual and contraceptive knowledge. The President's Commission on Population Growth and the American Future (1972) summed up this thinking when it stated: "One characteristic American response to social issues is to propose educational programs, and this commission is no exception." While the increase of accurate sexual information is important, our study results indicate that it is not enough. It is not a sufficient response to the problems of teenage fertility. More and better education along lines other than conventional ones is called for. Three points from the study are pertinent:

1. On a six-item test of basic sex knowledge, sexually active individuals, both male and female, more often answered correctly and were certain of their answers. The active were also better able to recall or recognize different forms of birth control. This may indicate that because of their activity they are more alert to contraceptive information.

2. Among women at both ages interviewed, there were no differences in sex knowledge or contraceptive knowledge found between good versus poor contraceptive users. All of the sexually active were equally knowledgeable

(or ignorant if you prefer) about risk of unprotected coitus, and about specific contraceptive methods and their effectiveness. Among men at the first interview, knowledge of specific contraceptive methods was related to better contraceptive use. By the time of second interview, however, all active males were equally informed about various birth control methods. This would seem to indicate that, at least for our sample, increasing knowledge will not be a major key to reducing unwanted fertility. The one area where increasing knowledge, particularly knowledge about various birth control methods, might help is among younger males. One should not conclude from this that our study implies that education is not useful. The teenagers is our study have had, I would guess, sex education which is as good as or better than the national average. They have almost all had a required health course which devotes some time to human reproduction and birth control. This is better than 61% of such classes across the nation where the topic of "family planning" is not even discussed (Alan Guttmacher Institute, 1977). At any rate, their educational experience is almost uniform and thus does not allow assesment of differences in education. However, I do think that the direction of improvement lies not in better <u>informational</u> programs, but better <u>educational</u> ones. That is, not only increasing information, but adopting different educational strategies than those commonly used. We have recently had the opportunity to conduct a preliminary investigation in a community which has developed a program along the lines I am suggesting. The program not only has the health course required by state law, but also provides an elective family planning course. Basically what distinguishes both of the courses is that not only do they provide information, but they also allow students the opportunity to actually explore, through

discussions, lectures and programmed instruction units, their own feelings and attitudes, and the thinking of others about human sexuality. Our investigation is tentative but indicates that this program has had the results which many of us suspect it should. The students from this program are not only accurately informed concerning factual aspects of sex and contraception, but seem to have a higher degree of sexual responsibility. Contraceptive use is high among the sexually active, but perhaps more interestingly, more of these young women seem to be postponing their initial sexual experience until a later age. The program is possible because of concerned administrators who are willing to take sensible steps in developing educational programs, and because of qualified faculty who are personally equipped to conduct the courses.

CONCLUSION

Our study began with the question of how adolescent development is related to teenage fertility. It leads to the question "are teenagers really different from older individuals?" Our findings indicate that in some respects they are. I have detailed here only some of the ways in which sexual experiences are influenced by social and emotional maturity and have outlined some of the problems which result from the need to coordinate development on the levels of biology, individual differences, and social interactions. Many of these problems will never again concern the individual to the great extent that they do during adolescence.

It is well to remember, however, that in a larger sense, teenage fertility regulation is not greatly different than at later ages. Human fertility decisions always demand a blend of emotion and logic.

This is an overriding characteristic of human sexuality. The ability to make life decisions which combine both feelings and facts develops during the adolescent years. If one is to understand the dynamics of psychosexual development, this characteristic must be central to our thinking.

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